

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

**Inventors:** Ronald J. Smith

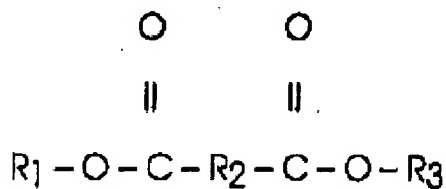
Maria K. Smith

**Title: MIXED ESTERS OF DICARBOXYLIC ACIDS FOR USE AS PIGMENT  
5 DISPERSANTS**

**ABSTRACT**

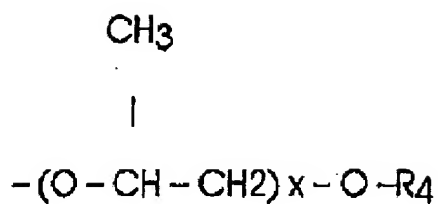
Novel mixed esters of dicarboxylic acids with monohydric fatty alcohols and propoxylated  
fatty alcohols show unexpected superior properties as pigment dispersants, especially for inorganic  
pigments used in foundations, make-ups, lipsticks and physical sunscreens. The compounds of the  
10 present invention show superior pigment wetting and dispersing properties, as demonstrated by their  
ability to form fluid, very high-solids dispersions, while exhibiting unusual emolliency and gloss  
formation.

The novel compounds of this invention have the following structural formula:



wherein R<sub>1</sub> is has the structural formula:

5



wherein:

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$\text{R}_4$  is a saturated or unsaturated, substituted or unsubstituted aliphatic moiety containing from 4 to 24 carbon atoms;

$\text{X}$  is an integer from 3 to 30;

$\text{R}_2$  is a saturated or unsaturated, substituted or unsubstituted aliphatic moiety which contains from 4 to 40 carbon atoms; and

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$\text{R}_3$  is a saturated or unsaturated, straight chain or branched chain aliphatic moiety containing from 12 to 24 carbon atoms. The preferred compounds are Octyldodecyl PPG-3 Myristyl Ether Dilinoleate and Isostearyl PPG-4 Butyloctyl Ether Dilinoleate.